

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA**

3M Innovative Properties Company  
and 3M Company,

Civil No. 09-3335 (DWF/AJB)

Plaintiffs,

v.

**MEMORANDUM  
OPINION AND ORDER**

Tredegear Corporation and Tredegear Film  
Products Corporation,

Defendants,

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Martin R. Lueck, Esq., Nicole E. Kopinski, Esq., and Stacie E. Oberts, Esq., Robins  
Kaplan Miller & Ciresi LLP, counsel for Plaintiffs.

Aaron J. Bergstrom, Esq., Charles K. Verhoeven, Esq., Christopher E. Stretch, Esq., and  
Emily C. O'Brien, Esq., Quinn Emanuel Urquhart & Sullivan, LLP; and Darren B.  
Schwiebert, Esq., Kurt J. Niederluecke, Esq., Laura L. Myers, Esq., and Lora Mitchell  
Friedemann, Esq., Fredrikson & Byron, PA, counsel for Defendants.

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**INTRODUCTION**

This matter is before the Court on the issue of patent claim construction pursuant  
to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

**BACKGROUND**

This litigation involves allegations by Plaintiffs 3M Innovative Properties  
Company and 3M Company (together, “3M”) that Defendants Tredegear Corporation and  
Tredegear Film Products Corporation (together, “Tredegear”) are infringing one or more  
claims of U.S. Patent No. 5,501,679 (the “’679 Patent”); U.S. Patent No. 5,691,034 (the

'034 Patent"); U.S. Patent No. 5,468,428 (the "'428 Patent"); and U.S. Patent No. 5,344,691 (the "'691 Patent") (together, the "Patents-in-Suit"). The patents relate to multi-layer elastomeric<sup>1</sup> laminates used primarily in the body-engaging or body-hugging areas of disposable diapers and adult incontinence products. The parties disagree as to the meaning of several terms in the Patents-in-Suit.

# **I. The '679 and '034 Patents (the "Krueger Patents")**

The '679 Patent and '034 Patents (the "Krueger Patents") are both entitled "Elastomeric Laminates with Microtextured Skin Layers" and were issued on March 26, 1996 and November 25, 1997, respectively.<sup>2</sup> The Abstracts of the Krueger Patents read: "Microtextured elastomeric laminates comprising at least one elastomeric layer and one thin skin layer is preferably prepared by coextrusion of the layers followed by stretching the laminate past the elastic limit of the skin layers and then allowing the laminate to recover." (Krueger Patents Abstracts.) The Krueger Patents claim elastomeric multi-layer laminates, as well as garments that incorporate the multi-layer laminates in body-engaging areas. The multi-layer laminates described in the Krueger Patents comprise at least one elastomeric layer and one relatively non-elastomeric skin layer that will become elastic when stretched beyond the elastic limit of the skin layer. When the laminate is relaxed, the elastomeric core contracts and the skin layer, having been

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<sup>1</sup> "Elastomeric" means that the material will substantially resume its original shape after being stretched.

<sup>2</sup> The parties agree that the specifications of the Krueger Patents are largely identical. The parties have cited mainly to the '679 Patent specification when discussing the Krueger Patents. Unless otherwise noted, the Court will do the same.

permanently deformed via stretching, forms a microtextured surface that is smooth or soft to the touch.

The disputed terms of the '679 Patent appear in claims 1, 2, 4, 5, 7, and 8:

1. A garment comprising a body engaging area said body engaging area comprising an elastomeric laminate comprising at least one discrete elastomeric layer and at least two discrete continuous skin layers at least one of which is a microtextured permanently deformed polymeric layer wherein the materials forming the elastomeric layer and the materials forming the polymeric layer are selected such that said at least one elastomeric layer and said at least one microtextured skin layer are in continuous contact.

2. The garment of claim 1 comprising a diaper wherein said body engaging area is a waist engaging area.

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4. The garment of claim 1 comprising a diaper wherein the said body engaging area is a hip engaging area.

5. The garment of claim 1 wherein:  
(a) said elastomeric laminate is a film and  
(b) each layer has a substantially constant thickness across the width of said film.

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7. The garment of claim 1 wherein the surface area of the microtextured skin layer is at least 50% greater than a corresponding untextured surface.

8. The garment of claim 1 wherein the microtextured surface formed comprises folds.

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(Doc. No. 3-2 ('679 Patent) c. 28, l:60-c. 30, l:12.)

The terms of the '034 Patent that are in dispute appear in claims 1, 2, 5, 6, 9, and 10:

1. An elastomeric laminate consisting essentially of at least one elastomeric layer and at least one continuous microtextured skin layer over substantially the entire laminate wherein:

- (a) the microtexture on said skin layer is formed by stretching an untextured laminate past the deformation limit of at least one untextured skin layer and allowing the stretched laminate to elastically recover over the entire region stretched and
- (b) said at least one elastomeric layer and said at least one continuous microtextured skin layer are in substantially continuous contact.

2. The elastomeric laminate of claim 1 wherein the microtexture comprises folding of said at least one continuous microtextured skin layer.

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5. The elastomeric laminate of claim 1 wherein said at least one continuous microtextured skin layer is an outer layer.

6. The elastomeric laminate of claim 1 wherein the deformation of said at least one continuous microtextured skin layer is created by uniaxial stretching.

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9. A colored elastomeric ribbon comprising at least one layer having an added colorant and at least one opaque polymeric skin layer, wherein said at least one opaque polymeric skin layer is a microtextured outer layer.

10. The colored elastomeric ribbon of claim 9 wherein said at least one layer having an added colorant is an elastomeric core layer.

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(Doc. No. 3-1 ('034 Patent) c. 28, l:40-c. 29, l:13.)

## **I. The '691 and '428 Patents (the “Hanschen Patents”)**

The '691 Patent and '428 Patents (the “Hanschen Patents”) are both entitled “Spatially Modified Elastic Laminates” and were issued on September 6, 1994 and November 21, 1995, respectively. The Hanschen Patents’ Abstracts both read:

Microtextured elastomeric laminates comprising at least one elastomeric layer and at least one thin skin layer is preferably prepared by coextrusion of the layers followed by stretching the laminate past the elastic limit of the skin layers in predetermined regions of the laminate and then allowing the laminate to recover in these regions.

(Hanschen Patents’ Abstract.)<sup>3</sup> Like the Krueger Patents, the Hanschen Patents also relate to elastomeric multi-layer laminates, as well as garments that incorporate the multi-layer laminates in body-engaging areas. The multi-layer laminates described in the Hanschen Patents also claim at least one elastomeric layer and one skin layer and will become elastic when stretched beyond the elastic limit of the skin layer. The Hanschen Patents, however, claim both inelastic and elastic zones so that when the laminate is stretched, only certain zones are stretched past their deformation limit and only those activated (or stretched) zones relax to exhibit a microtextured surface.

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<sup>3</sup> The parties agree that the specifications of the Hanschen Patents are largely identical. The parties have cited mainly to the '691 Patent specification when discussing the Hanschen Patents. Unless otherwise noted, the Court will do the same.

The terms of the '691 Patent that are in dispute appear in claims 1, 19, 25, 29, 30, 31, 38, 39, 41, 45, 48, 51, 52, 53, 55, and 56.<sup>4</sup>

1. A multi-layer *inelastic* film laminate comprising at least one nonelastomeric skin film layer and at least one core film layer, the at least one skin film layer and the at least one core film layer together forming at least one preferential activation zone where the film laminate will preferentially elongate when stretched, wherein said at least one core film layer is substantially elastomeric each of said core and skin layers being substantially coextensive and having relatively constant average thicknesses over both the at least one preferential activation zone and at least one adjacent non-preferential activation zone such that, for a given skin or core layer, the skin or core layer thickness in one zone will be substantially the same as the same skin or core layer thickness in all zones, said at least one skin film layer and/or at least one core film layer are provided such that when the multi-layer laminate is stretched said at least one preferential activation zone will preferentially elongate and can recover in said preferential activation zone to become an elastic zone, of said multi-layer film laminate, and adjacent multi-layer non-preferential activation zones will not preferentially elongate to provide substantially inelastic zones.

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19. The [elastomeric] film laminate of claim **1** wherein at least one of said core layers is an inner layer and at least one skin layer is an outer layer.

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25. The [elastomeric] film laminate of claim **1** wherein at least one preferential activation zone is comprised of at least one preferential stress region.

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<sup>4</sup> The '691 Patent was amended after reexamination. Per the amended claims, matter enclosed in bolded brackets appeared in the patent as originally issued, but was deleted and is no longer a part of the patent. Words that are italicized represent additions to the patent made per the amendment. The amended claims are reflected in the Reexamination Certificate attached to the end of the patent.

29. A multi-layer *inelastic* film laminate comprising at least one non-elastomeric skin film layer and at least one core film layer, the at least one skin layer and the at least one core layer forming preferential activation regions and non-preferential activation regions for a given skin or core layer, the skin or core layer thickness in one region will be substantially the same as the same skin or core layer thickness in all regions, wherein said at least one core layer is substantially elastomeric in said preferential activation regions, and said at least one skin layer and/or said at least one core layer are provided such that when the multi-layer laminate is stretched, said preferential activation regions can elongate and recover in the elongated regions to an elastic state.

30. The [elastomeric] film laminate of claim **29** wherein said preferential activation regions define zones of preferential activation on the laminate.

31. The [elastomeric] film laminate of claim **30** wherein at least some of said preferential and non-preferential activation regions form a pattern which when stretched and recovered will form a patterned surface macrotexture with at least one microstructured skin layer in said preferential activation regions.

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38. An article having a film laminate with elastic regions comprising a film laminate having elasticized preferential zones and nonelasticized non-preferential activation zones which laminate is comprised of at least one nonelastomeric skin film layer and at least one at least partially elastomeric core film layer such that, for a given skin or core layer, the skin or core layer thickness in one zone will be substantially the same as the same skin or core layer thickness in all zones, *and the at least one nonelastomeric skin film layer in the elasticized preferential activation zones having a microstructured texture.*

39. The article of claim **38** wherein said article is a garment further comprising an engagement surface to which the elastomeric laminate is attached.

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41. The article of claim **39** comprising a diaper.

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45. The article of claim **38** wherein said nonelasticized and elasticized zones extend continuously across substantially entire extents of said laminate.

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48. The article of claim **38** wherein said elasticized zones are comprised predominantly of regions treated to create preferential stress concentration.

...

51. The [elastomeric] film laminate of claim **1** wherein the laminate is a film formed of substantially coextensive layers having a relatively constant average thickness across the width of the laminate.

52. The [elastomeric] film laminate of claim **1** wherein the core and skin layers remain in substantially continuous contact in the activated zones following stretching and activation.

53. The [elastomeric] film laminate of claim **1** wherein the skin and core layers remain in substantially intermittent contact in the activated zones following stretching and activation.

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55. The [elastomeric] film laminate of claim **1** wherein the at least partially elastomeric core comprises an A-B-A block copolymer.

56. The [elastomeric] film laminate of claim **55** wherein the ABA block copolymer comprises a styrene-isoprene-styrene, styrene-butadiene-styrene or styrene-enthylene butylene-styrene block copolymer.

(Doc. No. 3-4 ('691 Patent), c. 36, l:41-c. 40, l:44; Doc. No. 3-4 (Ex Parte Reexamination Certificate of the '691 Patent), c. 1, l:23-c. 4, l:55.)

The terms of the '428 Patent that are in dispute appear in claims 1 and 4.

1. A method of forming a zone activatable inelastic laminate

comprising the steps of providing a multilayer laminate of elastomeric core and thermoplastic skin layers and treating said laminate at certain regions in one or more layers to provide preferential activation zones wherein said preferential activation zones will preferentially elongate and recover to form an elastic zone.

. . . .

4. The method of claim 1 wherein said laminate is treated to have preferential stress regions.

. . . .

(Doc. No. 303 ('428 Patent) c. 37, ll:1-15.)

## DISCUSSION

### I. Claim Construction Principles

Patent claim construction, i.e., the interpretation of the patent claims that define the scope of the patent, is a matter of law for the court. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1999). Proper claim construction requires an examination of the intrinsic evidence of record, including the claim language, the specification, and the prosecution history. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The starting point for claim construction is a review of the words of the claims themselves. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (citation omitted); *see also* *Vitronics*, 90 F.3d at 1582 (“First, we look to the words of the claims themselves, both asserted and unasserted, to define the scope of the patented invention.”). The words of a claim generally carry “the meaning that the term would have to a person of ordinary skill in the art at the time of the invention.” *Phillips*, 415 F.3d at 1313. Claims must also be

read in view of the specification. *Id.* at 1315. The specification is “the single best guide to the meaning of a disputed term.” *Id.* (citing *Vitronics*, 90 F.3d at 1582.) The specification may prescribe a special definition given to a claim term or a disavowal of claim scope by the inventor. *Id.* at 1316. In such cases, the inventor’s intention that is expressed in the specification is dispositive. *Id.* The Court may not, however, import limitations from the specification into the claims. *Id.* at 1323. The Court should also consider the patent’s prosecution history, which provides evidence of how the United States Patent and Trademark Office (“USPTO”) and the inventor understood the patent. *Id.* at 1317. The court may, in its discretion, consider extrinsic evidence, though such evidence is less reliable than intrinsic evidence. *Id.* at 1317-18. In most situations, however, intrinsic evidence will resolve any ambiguity in a disputed term, and when it does so, it is improper to rely on extrinsic evidence. *Vitronics*, 90 F.3d at 1583. The court may use a dictionary or technical treatise to “assist in understanding the commonly understood meaning” of a term, so long as any meaning found in such sources does not contradict the definition that is found in the patent documents. *Phillips*, 415 F.3d at 1322-23.

## **II. Construction of Disputed Claim Terms**

### **A. “microtextured,” “microtexturing,” and “microstructured”**

The parties dispute the meaning of the term “microtextured” as it appears in claims 1, 2, 4, 5, 7, and 8 of the ’679 Patent, claims 1, 2, 5, 6, 9, and 10 of the ’034

Patent, and claims 31, 38, 39, 41, 45 and 48 of the '691 Patent.<sup>5</sup> 3M contends that the term “microtextured” is properly construed as:

The surface contains peak and valley irregularities or folds which are large enough to be perceived by the unaided human eye as causing increased opacity over the opacity of the laminate before microstructuring, and which irregularities are small enough to be perceived as smooth or soft to human skin. Magnification of the irregularities is required to see the details of the microstructured texture.

(Doc. No. 104 at 36; 3M's Markman Presentation at 20.)<sup>6</sup> Tredegar asserts that the term “microtextured” should be construed as:

Peak and valley irregularities or folds which are large enough to be perceived by the unaided human eye as causing increased opacity over the opacity of the laminate before microstructuring, and which irregularities are small enough to be perceived as smooth or soft to the human skin; increases the opacity value of a clear film to at least 20%, preferably to at least 30%.

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<sup>5</sup> For example, claim 1 of the '679 Patent reads:

A garment comprising a body engaging area said body engaging area comprising an elastomeric laminate comprising at least one discrete elastomeric layer and at least two discrete continuous skin layers at least one of which is a microtextured permanently deformed polymeric layer wherein the materials forming the elastomeric layer and the materials forming the polymeric layer are selected such that said at least one elastomeric layer and said at least one microtextured skin layer are in continuous contact.

('679 Patent, c. 28, ll:61-67-c. 29, ll:1-2 (emphasis added).)

<sup>6</sup> 3M originally contended that the term “microtextured” was properly construed as “the surface contains peak and valley irregularities or folds which can be seen through magnification.” (Joint Claim Construction Chart (“Joint Chart”), Doc. No. 30, Ex. 1 at 1.) 3M later modified its proposed construction.

The Court notes that several disputed terms appear multiple times in the parties' Joint Chart. For ease of reference, the Court will attempt to cite only to a particular term's first appearance in the Joint Chart.

The opacity increase is also reversible to the extent that when restretched, the film will clear again. Magnification of the irregularities is required to see the details of the microstructured texture.

(Joint Claim Construction Chart (“Joint Chart”), Doc. No. 30, Ex. 1 at 1.)<sup>7</sup>

Microtexturing occurs after the laminate is stretched past its elastic limit. (’679 Patent, c. 3, ll:32-34.) The parties agree that microtexturing refers to “peak and valley irregularities or folds” and that magnification of these irregularities is required to see the details of the microstructured texture. The parties further agree that the irregularities are large enough to be perceived by the unaided eye as causing increased opacity over the opacity of the laminate before microstructuring (or microtexturing), and that the irregularities are small enough to be perceived as smooth or soft to human skin. Tredegar, however, contends that additional characteristics should be included in the construction of “microtexture”—that the increase in opacity value of a clear film be at least 20% and preferably 30%, and that the opacity increase be reversible to the extent that when restretched, the film will clear again. 3M objects to the inclusion of these characteristics and contends that, while these additional characteristics may result from microtexturing, there is no basis to include in the construction of the claim terms each of the potential results mentioned in the specification.

In support of their proposed constructions, both parties point to the specification of the ’679 Patent, beginning with the Detailed Description of Preferred Embodiments of the Invention, which states in part:

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<sup>7</sup> The parties agree that the terms “microtextured” and “microstructured” should be given an identical construction.

The skin layer is stretched beyond its elastic limit and is relaxed with the core so as to form a microstructured surface. Microstructure means that the surface contains peak and valley irregularities or folds which are large enough to be perceived by the unaided human eye as causing increased opacity over the opacity of the laminate before microstructuring, and which irregularities are small enough to be perceived as smooth or soft to human skin. Magnification of the irregularities is required to see the details of the microstructured texture.

(*Id.*, c. 4, ll:49-58 (emphasis added).) Both parties also cite to the following portion of the specification:

The microstructured surface consists of relatively systematic irregularities whether stretched uniaxially, as was the FIG. 3 laminate, or biaxially. These irregularities increase the opacity and decrease the gloss of the surface layers of the laminate, but generally do not result in cracks or openings in the surface layer when the layer is examined under a scanning electron microscope.

(*Id.*, c. 11, ll:34-40.)

Tredegear, however, points out that the result of microtexturing is further explained in the specification:

Increased opacity of the skin and hence the laminate also results from the microtexturing. Generally, the microtexturing will increase the opacity value of a clear film to at least 20%, preferably to at least 30%. This increase in opacity is dependent on the texturing of the laminate with coarse textures increasing the opacity less than fine textures. The opacity increase is also reversible to the extent that when restretched, the film will clear again.

(*Id.*, c. 12, ll:41-49.) Tredegear asserts that these additional characteristics should be part of the construction of the term “microstructured.”

A review of the patent specification reveals that the patentees acted as lexicographers when they defined the term “microtextured” in the specification. Because the patentees defined the term in the specification, the specification acts as a dictionary.

*See Vitronics Corp.*, 90 F.3d at 1582. The Court agrees with the parties that the specification supports the inclusion of certain characteristics of “microtexturing”—specifically those discussed in the Detailed Description of Preferred Embodiments of the Invention in the paragraph that explains what microstructure *means*. These characteristics include that the irregularities “are large enough to be perceived by the unaided eye as causing increased opacity over the opacity of the laminate before microstructuring, and which irregularities are small enough to be perceived as smooth or soft to human skin” and that “[m]agnification of the irregularities is required to see the details of the microstructured texture.” (*Id.*, c. 4, ll:49-58.) The Court, however, declines to include the additional characteristics proposed by Tredegar. Those additional characteristics, while discussed in the patent specification, are part of a discussion of what occurs, generally, after microtexturing. (*Id.* c. 12, ll:41-49.) A person of ordinary skill in the art would not understand that “microtextured” is limited to those generally occurring characteristics. Thus, importing those limitations into the term’s construction would be improper. *See Phillips*, 415 F.3d at 1323.

Based on the intrinsic evidence of the ’679 Patent, the Court concludes that the term “microtextured” is properly construed to mean “the surface contains peak and valley irregularities or folds which are large enough to be perceived by the unaided eye as causing increased opacity over the opacity of the laminate before microstructuring, and which irregularities are small enough to be perceived as smooth or soft to human skin. Magnification of the irregularities is required to see the details of the microstructured texture.”

**B. “continuous contact” and “substantially continuous contact”**

The parties dispute the meaning of the terms “continuous contact” and “substantially continuous contact” as they appear in claims 1, 2, 4, 5, 7, and 8 of the ’679 Patent, claims 1, 2, 5, and 6 of the ’034 Patent, and claim 52 of the ’691 Patent. For example, claim 1 of the ’679 Patent reads in part: “. . . wherein the materials forming the elastomeric layer and the materials forming the polymeric layer are selected such that said at least one elastomeric layer and said at least one microtextured skin layer are in continuous contact.” (’679 Patent, c. 28, ll:66-c. 29, l:2 (emphasis added).) In addition, claim 52 of the ’691 Patent reads in part: “wherein the core and skin layers remain in substantially continuous contact in the activated zones following stretching and activation.” (’691 Patent (Reexamination Certificate), c. 4, ll:38-42 (emphasis added).)

3M contends that the terms “continuous contact” and “substantially continuous contact” are properly construed as “the elastomeric layer fills the folds of the microtextured skin, which includes instances where the elastomeric layer undergoes cohesive failure under the folds of the skin.” (Joint Chart, Ex. 1 at 4.)<sup>8</sup> Tredegar asserts that that the terms should be construed as “full surface contact.” (*Id.*)

Both parties point out that the specification discloses three modes of contact between the microtextured skin and the elastomeric layers:

If the elastomeric layer is in direct contact with the skin layer the skin layer should have sufficient adhesion to the elastomeric core layer such that it will not readily delaminate. Skin-to-core contact has been found to follow three modes: first, full contact between the core and microtextured skin

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<sup>8</sup> The parties agree that these two terms should be given an identical construction.

(FIG. 22); second, cohesive failure of the core under the microtexture folds (FIG. 23); and third, adhesive failure of the skin to the core under the microtexture folds with intermittent skin/core contact at the fold valleys (FIG. 24).

(’679 Patent, c. 6, ll:40-48.)

The specification goes on to explain the modes of contact. First, with respect to the first mode of contact—“full contact”—the specification states that “the core and skin remain in full contact with the core material, filling the folds formed in the skin layers.” (*Id.* at c. 13, ll:10-12.) Second, the specification explains that the second mode of contact—“cohesive failure”—is a type of “continuous contact”: “A variation of this continuous contact construction is also possible where the elastomer fills the skin folds but is observed to cohesively fail under the folds.” (*Id.* at c. 13, ll:14-16.) Third, the specification discloses a third type of contact—“intermittent contact”—which is “adhesive failure of the skin to the core under the microtexture folds with intermittent skin/core contact at the fold valleys.” (*Id.* at c. 6, ll:46-49.) 3M asserts that its proposed construction captures the specification’s teaching that “cohesive failure” is a variation of “continuous contact.”

Tredegar acknowledges that the specification indicates that skin-to-core contact varies depending on the skin and core compositions and that the specification describes three different types of contact between the outer layer (skin) and inner layer (core). (*See id.*, FIGS. 22-24.) Tredegar, however, asserts that 3M ignores a key amendment made by the applicants during the prosecution of the ’679 Patent and that the amendment gave up all but the narrowest of these types of contact—“continuous contact.” (Doc. 41 at 40.)

Both parties acknowledge that the applicants amended the “continuous contact” limitation to avoid the prior art reference of the Hazelton Patent, U.S. Patent No. 4,880,682. The Hazelton Patent relates to a low gloss film made up of a three-layer composite material with an elastomeric core and two inelastic outer skin layers. (Doc. No. 44 ¶ 10, Ex. 9 (’682 Patent); ’682 Patent Abstract & Figs. 1, 2; ’682 Patent, c. 6, ll:62-66.) To overcome the Hazelton reference, the applicants amended their claims to add that the skin and core layers must be in “substantially continuous contact.” (Doc. No. 43 ¶ 9, Ex. H at 3M0024520.) Specifically, the applicants explained:

Claim 38 recites an elastomeric laminate having a continuous microtextured skin layer over substantially the entire laminate surface. In order to distinguish this material from that disclosed in Hazelton et al., the claim has been amended to state that the skin and core layers are in “substantially continuous contact”. This is the language used in the specification to describe the embodiments depicted in Figs. 22 and 23 (see page 24, lines 8-29 and Example 32). As stated in the specification, it has generally been found that this continuous skin-to-core layer contact is preferred as the elastic is more protected from atmospheric oxidation and degradation and the skin layer is less likely to delaminate.

(*Id.*) Figure 22 discloses continuous (or full) contact between the layers, and Figure 23 discloses continuous contact with cohesive failure. Because Figure 22 discloses full contact, and “substantially continuous contact” is by definition broader than full contact, then Figure 23 must refer to “substantially continuous contact.”

The applicants, however, made a second amendment after the examiner rejected the above-proposed amendment over the Hazelton reference. (*Id.* at 3M0024538.) The examiner explained:

Claims 48-55 and 57 are rejected under 35 U.S.C. § 103 as being unpatentable over Hazelton et al. ('682), as discussed in the previous Office Action.

In response to the applicant's request for reconsideration and the arguments enunciated therein, the examiner notes that a) claim 48 recites only a "substantially continuous contact"; and b) the claimed product is arbitrary in that there is no patentable difference between it and the prior art.

(*Id.* at 3M0024538-39.) In response, the applicants again amended the claims, this time by deleting the "substantially" continuous contact. (*Id.* at 3M0024541.) The applicants explained:

Claims 48 to 55 and 57 stand rejected under 35 U.S.C. 103 as unpatentable over Hazelton et al. It is submitted that claim 48 and its dependent claims are now differentiated from Hazelton et al. in that the term "substantially" has been eliminated in modifying the phrase "continuous contact." This makes clear that Applicants claims do not cover laminates of the type disclosed in Hazelton et al. Further, claim 48 has been amended to more clearly recite the elastomeric layer and the polymeric layer are selected to ensure continuous contact between the skin layer and the elastomeric layer. This indicates that the claim product is a product of a reasoned or guided selection as taught in the specification and not an arbitrary result.

(*Id.* at 3M0024543-44 (emphasis added).)

Tredeggar argues that this prosecution history demonstrates that the applicants disclaimed any right to contact that is not continuous between the layers. 3M argues that the prosecution history demonstrates that by deleting "substantially," the applicants clarified that the claim does not cover "intermittent contact" and limited themselves to the two other forms of contact—full contact and cohesive failure.

On this point, the Court agrees with Tredeggar's arguments. By amending this claim the second time, the applicants disclaimed any contact that is not continuous

between the layers and clarified that “claim 48 has been amended to more clearly recite the elastomeric layer and the polymeric layer are selected to ensure continuous contact between the skin layer and the elastomeric layer.” (*Id.* at 3M0024543 (emphasis added).) As explained above, Figure 22 of the ’679 Patent illustrates “a uniaxially stretched laminate with continuous skin/core contact.” (’679 Patent, c. 4, ll:32-34.) The Court concludes that the applicants limited themselves to this embodiment during the prosecution of the ’679 Patent.

Accordingly, the Court concludes that the term “continuous contact” and “substantially continuous contact” are properly construed as “full surface contact.”

### **C. “preferential activation” claims**

The Hanschen Patents include limitations relating to the concept of “preferential activation.” These terms include: “preferential activation zones”; “preferential activation regions”; “nonpreferential activation zones”; “nonpreferential activation regions”; “preferential stress region(s)”; “elasticized preferential activation zones”; “nonelasticized preferential activation zones”; “treated to create preferential stress concentration”; “will preferentially elongate when stretched”; “will preferentially elongate and recover to form an elastic zone”; and “zone activatable.”

#### **1. “preferential activation zones” and “preferential activation regions”**

The parties dispute the meaning of the terms “preferential activation zones” and “preferential activation regions” as they appear in claims 1, 19, 25, 29, 30, 31, 51, 52, 53, 55, and 56 of the ’691 Patent and claims 1 and 4 of the ’428 Patent.

3M contends that the terms “preferential activations zone(s)” and “preferential activation regions” are properly construed as “the area of the multi-layer laminate which will preferentially elongate to form an elastic zone.” (Joint Chart, Ex. 3 at 5.) Tredegar asserts that the term “preferential activations zone” should be construed as “identifiable predetermined areas of the laminate that are inelastic and, when the laminate is stretched as a whole will elongate before or to a greater extent than adjacent areas.” (*Id.*)

3M asserts that its proposed construction relies on express statements from the intrinsic record. In support, 3M points to the portion of the specification in the Summary of the Invention that explains preferential activation zones:

This selective or preferential activation is produced by controlling the relative elastic modulus<sup>9</sup> values of selected cross-sectional areas of the laminate to be less than modulus values of adjacent cross-sectional areas.

. . .

Alternatively, the laminate could be treated to enhance or concentrate stress in selected regions. This will yield essentially the same results as providing low modulus regions. By either construction, the laminate can activate in selected regions at lower stretch ratios than would normally be required to activate the entire laminate.

(’691 Patent, c. 3, ll:34-37, 43-49.) 3M also points to the following portion of the prosecution history to support the idea that the applicants represented that preferential activation zones can be created in a variety of ways:

The claims of the ’691 patent do not specify how the differential stretching is accomplished. The specification describes a variety of mechanisms for doing so ranging from altering the chemical composition in the skin layers

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<sup>9</sup> An “elastic modulus” is the mathematical description of an object’s or substance’s tendency to be deformed non-permanently when a force is applied to it.

in the areas to be stretched, weakening the skin layers in the areas to be stretched, strengthening the skin layers in the areas not to be stretched, or controlled localized stretching. See, e.g., column 9, line 49-column 10, line 12. Structures of the sort claimed in the '691 patent can thus be formed by any of a variety of techniques that achieve the differential stretching of the multi-layer film laminate. This could include controlled localized stretching through the use of appropriately configured and intermeshed grooved rollers.

(Doc. No. 44 ¶ 7, Ex. 6 at 6.) 3M contends that the specification then explains that the preferential activation zones are stretched past the elastic limit of the skin layers to create a microtextured laminate and that “[t]his is termed the selective or preferential activation.” ('691 Patent, c. 3, ll:24-28.) 3M further contends that during the prosecution of the '691 Patent, the inventors defined “preferential activation zones” by explaining that “the preferential activation zone has been further defined as that area of the multi-layer laminate which will preferentially elongate when the laminate is stretched, which elongate region can then recover (as described in the specification) to form an elastic zone in the multi-layer laminate.” (Doc. No. 44 ¶ 6, Ex. 5 at 140-41.) 3M asserts that this definition should control.

Tredeggar agrees that because the term preferential activation zone is a term coined by the patentee, it is necessary to look to the specification to determine its meaning. (Doc. No. 41 at 8.) Tredeggar asserts, however, that a review of the claim language and additional intrinsic evidence demonstrates that a “preferential activation zone” is “predetermined” and “identifiable,” exists in the intermediate product, and “will elongate later or to a lesser extent than adjacent areas” when “stretched as a whole.” 3M argues that Tredeggar is improperly attempting to read “predetermined” and “identifiable” into

the claims, and that the plain language of the claims merely requires that there be two different zones—a zone that will elongate and form an elastic zone and a zone that will not. 3M also argues that neither the claim language nor the specification requires a clear demarcation of the activatable and non-activatable zones. 3M further argues that the intrinsic record does not require that the zones exist before activation, but rather that the zones may be created simultaneously with activation.

First, the parties dispute whether a “preferential activation zone” is “predetermined” and “identifiable.” Tredegar maintains that the claims themselves clearly demonstrate that the different zones or regions (preferential activation zones versus non-preferential activation zones) must be predetermined and identifiable: specifically that one would need to be able to determine when a zone or region begins and ends to know if one were practicing the claim. (Doc. No. 104 at 91-93.) For example, Tredegar argues that because the claim language provides that when a laminate is stretched, at least one preferential activation zone will preferentially elongate, recover, and become an elastic zone, one must know where the zone is to determine if that preferential activation is occurring. (*Id.*)

In support of its construction, Tredegar points to the Abstract, which reads:

Microtextured elastomeric laminates comprising at least one elastomeric layer and at least one thin skin layer is preferably prepared by coextrusion of the layers followed by stretching the laminate past the elastic limit of the skin layers in predetermined regions of the laminate and then allowing the laminate to recover in these regions.

(’691 Patent, Abstract (emphasis added).) Tredegar also points to the Summary of the Invention, which reads in part as follows:

The novel, non-tacky microtexture laminate is obtained by stretching the laminate past the elastic limit of predetermined regions of the skin layers. This is termed selective or preferential activation. The laminate then recovers in these predetermined regions, which can be instantaneous, over an extended time period, which is skin layer controllable, or by the application of heat, which is also skin layer controllable.

(*Id.*, c. 3, ll:24-33 (emphasis added).) The specification goes on to describe adjacent zones with different modulus values:

This selective or preferential activation is produced by controlling the relative elastic modulus values of selected cross-sectional areas of the laminate to be less than modulus values of adjacent cross-sectional areas.

(*Id.*, c. 3, ll:34-39.)

Tredeggar further asserts that that patentee's statements distinguishing the invention from prior art support its proposed construction that a "preferential activation zone" is "predetermined." In particular:

PCT Application No. 90/02540 does not teach or disclose a multi-layer laminate which simultaneously has applicants' claimed features of: 1. A laminate formed of layers that are substantially coextensive and of constant thickness throughout the laminate (such as shown in Fig. 1 of PCT Application No. 90/02540), and 2. A laminate which will preferentially elongate in predetermined regions or zone in a manner (such as described for the Fig. 1a embodiment in PCT Application No. 90/02540).

(Doc. No. 43 ¶ 3, Ex. B at 3M0024103.)

Upon review of the intrinsic evidence, the Court concludes that a "preferential activation zone" is both "predetermined" and "identifiable." Tredeggar's proposed construction appropriately defines the term "preferential activation zone" consistently with the specification as being predetermined and identifiable as a result of being created before activation. ('691 Patent, Abstract; c. 3, ll:24-33; c. 3, ll:34-49.) The language of

the claims themselves describes two zones—activatable and non-activatable zones—that exist prior to activation, each with clearly determined and identifiable properties.<sup>10</sup> In addition, the word “predetermined” is used in both the Abstract and the Summary of the Invention to describe the preferential activation zones and preferential activation regions.<sup>11</sup>

Second, the parties dispute whether “preferential activation zones” must exist in the intermediate product—the inelastic laminate before the laminate is made elastic through activation or stretching. 3M contends that the specification and prosecution history contemplate that the zones can be created simultaneously with activation. In

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<sup>10</sup> The prosecution history underscores the notion that the zones are identifiable: “The preferential activation regions are determined by relative modulus values, i.e., the lower modulus value regions would be the preferential activation regions.” (Doc. No. 43 ¶ 3, Ex. B at 3M0024081.)

<sup>11</sup> The Court also notes that during the prosecution history of the ’034 Patent (a Krueger Patent), the applicants distinguished the ’691 Patent:

Claim 1 of the ’691 patent essentially claims a multi-layer film laminate which has “preferential activation zones” and “non-preferential activation zones.” The multi-layer film laminate preferentially elongates in the preferential activation zones forming an elastomeric laminate only in these zones. The invention disclosed in the ’691 patent is patentably distinct from that claimed in the instant application at least in that claim 38 et al. of the instant application do not teach or suggest how to provide a laminate having these preferential and non-preferential activation zones. Rather, the instant claims are limited to a laminate material which is elastomeric over substantially the entire laminate.

(Doc. No. 48, Ex. J at 3M0024720-21.) There would be no distinction between the ’034 Patent and the ’691 Patent if the “preferential activation zones” were not identifiable.

support, 3M points to the portion of the specification that refers to the use of “controlled localized stretching” as a means to treat and stretch the laminate at the same time:

Post formation stress localization can be effected by localized corona treatment, mechanical ablation, scoring, cutting out laminate material, indentation, controlled localized stretching or like treatments.

(’691 Patent, c. 10, ll:8-12.) Tredegar asserts that 3M’s argument that there can be simultaneous creation of preferential activation zones while activating the laminate would eliminate the distinction between the intermediate laminate with preferential zones that exist prior to activation and the final laminate with elasticized preferential activation zones that exist after activation.

The Court agrees with Tredegar. The claim language, specification, and prosecution histories of the Hanschen Patents demonstrate that the laminate exists in two states—an intermediate state and a final state. For example, claims 1 and 29 of the ’691 Patent are directed to an intermediate laminate that exists prior to activation and claim 38 is directed to a final laminate with elasticized preferential activation zones that exist after activation. Moreover, the claim language makes clear that the film laminate, in its intermediate stage, has not yet preferentially elongated but that the preferential activation zones exist. The specification also clarifies that the laminate exists in two states. (*See id.*, c. 3, ll:34-37 (“This selective or preferential activation is produced by controlling the relative elastic modulus values of selected cross-sectional areas of the laminate so as to be less than modulus values of adjacent cross-sectional areas.”); c. 14, ll:53-56 (“After forming the zone activatable laminate, the laminate is stretched past the elastic limit of the skin layer(s) exclusively or preferably in the lower modulus or preferred stress

regions, which deform.”).) In light of the claim language and additional intrinsic evidence, the Court concludes that preferential activation zones exist before the laminate is stretched.<sup>12</sup>

Third, the parties dispute whether Tredegar’s construction improperly attempts to introduce the limitation that the laminate must be stretched as a whole. Both the claim language and the specification describe a laminate that is stretched, the result of which is that at least one “preferential activation zone” will preferentially elongate and recover to become an elastic zone. Specifically, claim 1 of the ’691 Patent reads in part:

[a] multi-layer *inelastic* laminate comprising at least one nonelastomeric skin film and at least one core film layer . . . said at least one skin film layer and/or at least one core film layer are provided such that when the multi-layer laminate is stretched said at least one preferential activation zone will preferentially elongate and can recover in said preferential activation zone to become one elastic zone.

(’691 Patent (Reexamination Certification), c. 1, ll:23-40 (second emphasis added).) This language indicates that the multi-layer laminate, which comprises the preferential and non-preferential activation zones, is stretched as a whole. Moreover, as noted above, the specification provides: “After forming the zone activatable laminate, the laminate is stretched past the elastic limit of the skin layer(s) exclusively or preferably in the lower modulus or preferred stress regions, which deform.” (*Id.*, c. 14, ll:53-56 (emphasis added).) The prosecution history also provides:

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<sup>12</sup> Moreover, the prosecution history demonstrates that the laminate exists in two states. (Doc. No. 43 ¶ 3, Ex. B at 3M0024063.)

The preferential activation zone refers to a region of the multi-layer film laminate which will preferentially elongate when the film laminate as a whole is elongated. Conversely, the non-preferential activation zone is a section of the film laminate which will preferentially retain its original dimensions when the film laminate as a whole is elongated.

(Doc. No. 43 ¶ 3, Ex. B at 3M0024081 (emphasis added).)

Based on the intrinsic evidence, the Court concludes that the “preferential activation zones” are areas that are activated when the laminate is stretched as a whole.<sup>13</sup>

Finally, the parties dispute whether the claim language should provide that the preferential activation zones “will elongate first or to a greater extent than adjacent areas.” The claim language clearly indicates that when the laminate is stretched, the preferential activation zones will preferentially elongate before or to a greater extent than the adjacent non-preferential activation zones (which because of higher modulus values will remain inelastic). For example, claim 1 of the ’691 Patent provides that “when the multi-layer laminate is stretched said at least one preferential activation zone will preferentially elongate and can recover in said preferential activation zone to become an elastic zone . . . and adjacent multi-layer non-preferential activation zones will not preferentially elongate to provide substantially inelastic zones.” (’691 Patent

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<sup>13</sup> 3M argues that the reference to “intermeshed grooved rollers” in the prosecution history (Doc. No. 44 ¶ 7, Ex. 6 at 6) demonstrates that zones could be created and activated simultaneously. Tredegar disputes this and points out that 3M’s argument would eliminate the distinction between the intermediate and final laminates as claimed in the ’691 Patent. Tredegar also points out that the applicants made the referenced statement, which was part of a 2007 Request for a Reexamination, to the patent examiner thirteen years after the patent issued and that the applicant’s statement was never mentioned by the examiner. The Court agrees with Tredegar that 3M’s simultaneous activation argument fails.

(Reexamination Certificate), c. 1, ll:23-42.) Similarly, claim 29 of the '691 Patent provides that "when the multi-layer laminate is stretched, said preferential activation regions can elongate and recover in the elongated regions to an elastic state." (*Id.*, c. 3, ll:22-34.)

In addition, the '691 Patent specification provides, with respect to activation by stretching the laminate, that: "[t]he extent(s) with the lowest modulus value(s) will preferentially yield first, until its stress value overcomes the yield point of the extent(s) with the next highest modulus and so on." (*Id.*, c. 15, l:67-c. 16, l:2 (emphasis added).) In addition: "First, the zones or regions controlled to have lower overall modulus values will preferentially yield before adjacent, in the direction of an orienting stress, higher modulus regions." (*Id.*, c. 9, ll:53-56 (emphasis added).) Further the prosecution history discusses the preferential activation zone and explains:

Generally, the skin and/or the core layer of the multi-layer laminate will be modified in some manner or be compositionally adjusted in the preferential or non-preferential activation regions such that the preferential activation region or zone will preferentially elongate and recover when the multi-layer laminate is stretched.

(Doc. No. 43, ¶ 3, Ex. B at 3M0024063.)

Based on the intrinsic evidence, the Court determines that the preferential activation zones "will elongate first or to a greater extent than adjacent areas."

For all of the reasons discussed above, the Court construes "preferential activation zone" as "identifiable predetermined areas of the laminate that are inelastic and, when the laminate is stretched as a whole, will elongate before or to a greater extent than adjacent areas."

## **2. “non-preferential activation zones” and “non-preferential activation regions”**

Claims 1, 19, 25, 29, 30, 31, 51, 52, 53, 55, and 56 of the '691 Patent also recite “non-preferential activation zones” or “non-preferential activation regions.” 3M asserts that the terms “non-preferential activation zone” and “non-preferential activation region” should be construed as “the area of the multi-layer laminate that does not preferentially elongate to form an elastic zone,” and Tredegar asserts that these terms should be construed as “identifiable predetermined areas of the laminate that are inelastic and, when the laminate is stretched as a whole, will elongate later or to a lesser extent than adjacent areas.” (Joint Chart, Doc. No. 30, Ex. 4 at 3-4, 21-22.) The parties’ constructions reflect the fact that a “non-preferential activation zone” is the opposite of a “preferential activation zone.”

Based on the reasoning behind the Court’s construction of “preferential activation zones” and “preferential activation regions” above, the Court concludes that “non-preferential activation zones” and “non-preferential activation regions” are properly construed as “identifiable predetermined areas of the laminate that are inelastic and, when the laminate is stretched as a whole, will elongate later or to a lesser extent than adjacent areas.”

## **3. “elasticized preferential activation zones”**

The parties dispute the meaning of the term “elasticized preferential activation zones” as it appears in claims 38, 39, 41, 45, and 48 of the '691 Patent. These claims relate to the final laminate that has been activated or rendered elastic. 3M asserts that this

term should be construed as “the preferential activation zone after it has been activated by stretching the multi-layer film laminate past the elastic limit of the nonelastomeric skin film layer.” (*Id.*, Ex. 4 at 56.) Tredegar proposes the following construction for the term:

An identifiable predetermined area of the laminate that, when uniform tension is applied to the laminate, will elongate before an adjacent region and which exists only after tension has been applied to the laminate as a whole to a point past the elastic limit of at least one material in that area (i.e., a preferential activation zone that has been stretched past the elastic limit of the skin).

*Id.*

3M asserts that the last portion of Tredegar’s construction— (i.e., a preferential activation zone that has been stretched past the elastic limit of the skin)— is consistent with 3M’s construction. 3M, however, contends that the remaining portion of Tredegar’s proposed construction adds limitations that are unsupported by the claim language. For example, 3M again contends that limitations such as “identifiable” and “predetermined” are unsupportable, as are the limitations that uniform tension be applied, that the laminate be stretched as a whole, and that the elasticized zones “elongate before an adjacent region.” Finally, 3M contends that the specification does not support the requirement that the laminate be stretched “past the elastic limit of at least one material in the area,” arguing instead that the specification makes clear that it is the skin layer that is stretched past its elastic limit. With respect to 3M’s final argument, Tredegar indicated that it is willing to substitute “the skin layer” for “at least one material” in its construction.

Tredegar submits that the reexamination file history of the ’691 Patent supports its proposed construction, and in particular that there can be no elasticized preferential

activation zones without preceding preferential activation zones. For example, Tredegar cites to the following portion of the reexamination file history:

Claim 29 is directed to an intermediate product, in particular, it is directed to a multi-layer film laminate which has preferential activation regions that have not yet been activated. The final product having activation regions that have subsequently been activated is not covered by claim 29. Activation occurs by elongation and recovery, and claim 29 states that a property of the required preferential activation regions is that they “can elongate and recover in the elongated regions to an elastic state”. The intermediate product of claim 29 does not have this elastic state. . . . Once a preferential activation region has been activated to become elastomeric, it is no longer a preferential activation region.

. . .

Claim 38 recites “elasticized preferential activation zones” at line 2, not “preferential activation zones.” This is important because once a preferential activation zone has been elasticized, it is no longer a preferential activation zone. The same applies to dependent claims 39-48 and 58.

(Doc. No. 45, Ex. D at T0000697655-6, T0000697658.)

The Court agrees that preferential activation zones exist in the laminate before activation, and once activated, the preferential activation zones become “elasticized preferential activation zones.” Thus, there cannot be a laminate that contains elasticized preferential activation zones without there having been an intermediate laminate that contained preferential activation zones. Because, as discussed above, the preferential activation zones must be predetermined and identifiable, so must be the elasticized preferential activation zones. In addition, as discussed above with respect to “preferential activation zones,” the intrinsic evidence supports the conclusion that the preferential activation zones are created as a result of stretching the laminate as a whole, and it

follows that the same characteristic is required of the elasticized preferential activation zone.

Accordingly, the Court construes “elasticized preferential activation zone” as “an identifiable predetermined area of the laminate that, when uniform tension is applied to the laminate, will elongate before an adjacent region and which exists only after tension has been applied to the laminate as a whole to a point past the elastic limit of the skin layer in that area (i.e., a preferential activation zone that has been stretched past the elastic limit of the skin).”

#### **4. “non-elasticized preferential activation zones”**

Claims 38, 39, 41, 45, and 48 of the ’691 Patent recite “nonelasticized non-preferential activation zones.” 3M asserts that this term should be construed as “the area which remains inelastic (or nonelastic).” (Joint Chart, Ex. 4 at 61; Doc. No. 42 at 19.) Tredegar asserts that this term should be construed as “any area of the laminate that is not an ‘elasticized preferential activation zone.’” (Joint Chart, Ex. 4 at 57.) The parties’ constructions reflect the fact that a “nonelasticized non-preferential activation zone” is the opposite of an “elasticized preferential activation zone.”

The Court concludes that “nonelasticized non-preferential activation zones” is properly construed as “any area of the laminate that is not an ‘elasticized preferential activation zone.’”

#### **5. “treated to create preferential stress concentration”**

The parties dispute the meaning of the term “treated to create preferential stress concentration” as it appears in claim 48 of the ’691 Patent, which requires that the

“elasticized zones are comprised predominantly of regions treated to create preferential stress concentration.” 3M asserts that this claim should be construed as “enhancing or concentrating stress in selected regions through localized corona treatment, mechanical ablation, scoring, cutting out laminate material, indentation, or controlled localized stretching.” (*Id.*, Ex. 4 at 76.) Tredegar asserts that the term should be construed as “physical or chemical treatment of a layer in order to create areas in the laminate that will elongate first in response to an applied tension on the entire laminate and thus form ‘preferential activation regions.’” (Doc. No. 56 at 16.)<sup>14</sup>

The Hanschen Patent specifications recite two ways to create a preferential activation zone: (1) by controlling relative elastic modulus values of cross-sectional areas of the laminate; and (2) by treating the laminate to enhance or concentrate stress in selected regions. (’691 Patent, c. 3, ll:34-45.) In particular, the specification of the ’691 Patent reads:

This selective or preferential activation is produced by controlling the relative elastic modulus values of selected cross-sectional areas of the laminate to be less than modulus values of adjacent cross-sectional areas. The areas controlled to have reduced modulus will preferentially yield when subjected to stress. This will result in either preferential elastization of specified zones or fully elasticized laminates with higher strain regions, depending on the location of the areas of low modulus and the manner of stretch. Alternatively, the laminate could be treated to enhance or concentrate stress in selected regions. This will yield the same results as providing low modulus regions. By either construction, the laminate can activate in selected regions at lower stretch ratios than would normally be required to activate the entire laminate.

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<sup>14</sup> Tredegar modified its construction to conform with the distinction between a preferential stress region and a preferential activation zone or region. (Doc. No. 56 at 16.)

(’691 Patent, c. 3, ll:34-49 (emphasis added).) The specification provides that the two ways to create a preferential activation zone (through controlling relative elastic modulus values or treating the laminate to concentrate stress) will yield essentially the same results, and under both ways “the laminate can activate in selected regions at lower stretch ratios than would normally be required to activate the entire laminate.” (*Id.*, c. 3, ll:45-49.) Thus, the intrinsic evidence demonstrates that the term “treated to create preferential stress concentration” relates to the second way of creating a preferential activation zone. The specification explains further that “[r]egionally enhanced stress can be induced by physical or chemical treatment of a layer(s) such as by ablation, scoring, corona treatment or the like.” (*Id.*, c. 3, ll:55-58.)

The Court concludes that Tredegar’s proposed construction is consistent with the language of the specification and properly differentiates the two ways of creating a preferential activation zone. Accordingly, the Court construes the term “treated to create preferential stress concentration” as “physical or chemical treatment of a layer in order to create areas in the laminate that will elongate first in response to an applied tension on the entire laminate and thus form ‘preferential activation regions.’”

#### **6. “preferential stress regions”**

Claim 4 of the ’428 Patent and claim 25 of the ’691 Patent recite “preferential stress region(s).” 3M asserts that this term should be construed as “the area of the multi-layer laminate where the laminate experiences concentrated stress which will preferentially elongate that area to form an elastic zone.” (Joint Chart, Ex. 3 at 11.)

Tredeggar asserts that the term should be construed as “identifiable predetermined areas of the laminate created by physical or chemical treatment that are inelastic and, when the laminate is stretched as a whole, will elongate before or to a greater extent than adjacent areas.”<sup>15</sup>

Claim 25 of the '691 Patent reads in part: “The [elastomeric] film laminate of claim 1 wherein said at least one preferential activation zone is comprised of at least one preferential stress region.” ('691 Patent (Reexamination Certificate), c. 3, ll:1-3.)

Preferential stress regions are a subset of preferential activation zones or regions that are treated to enhance or concentrate stress in selected regions, rather than being created by controlling relative modulus values of areas of the laminate. As explained above, this second way of creating a preferential activation zone (by creating preferential stress regions) will yield essentially the same results as doing so by controlling relative elastic modulus values, and under both ways “the laminate can activate in selected regions at lower stretch ratios than would normally be required to activate the entire laminate.” ('691 Patent, c. 3, ll:45-49.)

As discussed above, the specification also demonstrates that the entire laminate will be stretched and that the preferential activation zones (and the subset of preferential stress regions) will elongate before or to a greater extent than other regions. Therefore, the Court construes the term as “identifiable predetermined areas of the laminate created

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<sup>15</sup> Tredeggar modified this proposed construction, agreeing that it should be construed differently than “preferential activation regions.”

by physical or chemical treatment that are inelastic and, when the laminate is stretched as a whole, will elongate before or to a greater extent than adjacent areas.”

**7. “will preferentially elongate when stretched”**

The parties dispute the meaning of the term “will preferentially elongate when stretched” as it appears in claims 1, 19, 25, 51, 52, 53, 55, and 56 of the ’691 Patent.

3M contends that this term is clear as written and need not be construed, but that if the Court decides to construe the term, it should construe it as “the laminate will elongate in the preferential activation zones when stretched.” (Joint Chart, Ex. 4 at 8.) Tredegar, on the other hand, asserts that the Court should construe the term as “a predetermined area of the laminate that will elongate first or to a greater extent than adjacent area when the laminate is subjected to uniform tension.” (*Id.* at 12.)

In light of the intrinsic evidence, and the Court’s previous constructions of the disputed claim terms, the Court adopts Tredegar’s proposed construction and construes the term as “a predetermined area of the laminate that will elongate first or to a greater extent than adjacent area when the laminate is subjected to uniform tension.”

**8. “will preferentially elongate and recover to form an elastic zone”**

The parties dispute the meaning of the term “will preferentially elongate and recover to form an elastic zone” as it appears in claims 1 and 4 of the ’428 Patent.

3M contends that this term is clear as written and need not be construed, but that if the Court decides to construe the term, it should construe it as “the laminate will elongate and recover to form an elastic zone.” (*Id.*, Ex. 3 at 8.) Tredegar, on the other hand, asserts that the Court should construe this term as “a predetermined area of the laminate

that will elongate first or to a greater extent than an adjacent area when the laminate is subjected to uniform tension and is elongated past the elastic deformation point in that area.” (*Id.*)

In light of the intrinsic evidence, and the Court’s previous constructions of the disputed claim terms, the Court adopts Tredegar’s proposed construction and construes the term as “a predetermined area of the laminate that will elongate first or to a greater extent than an adjacent area when the laminate is subjected to uniform tension and is elongated past the elastic deformation point in that area.”

#### **9. “zone activatable”**

The preamble of claim 1 of the ’428 Patent recites “[a] method of forming a zone activatable inelastic laminate.” 3M asserts that the claim language should be construed as “an inelastic laminate that can be activated in selected zones.” (*Id.*, Ex. 3 at 1.) Tredegar asserts that the Court should construe these term “zone activatable” as “when the unstretched laminate in uniformly stretched, the laminate will elongate only in certain predetermined zones.” (*Id.*)

Claim 1 of the ’428 Patent describes a laminate before it has been activated which is “zone activatable.” The specification explains:

After forming the zone activatable laminate, the laminate is stretched past the elastic limit of the skin layer(s) exclusively or preferably in the lower modulus or preferred stress regions, which deform. The zone activated laminate then is recovered instantaneously, with time or by the application of heat . . . .

(’428 Patent, c.14, ll:19-25.) The parties’ principal disagreement with respect to this term is whether it is proper to read Tredegar’s proposed limitations—that the preferential

activation zones are “predetermined” or that the laminate is uniformly stretched— into the meaning of this claim.

The Court concludes that the term is properly construed as “when the unstretched laminate is uniformly stretched, the laminate will elongate only in certain predetermined zones.”

**D. “substantially the same thickness,” “substantially constant thickness,” and “relatively constant average thickness”**

The parties dispute the meaning of the term “substantially the same thickness” as it appears in claims 1, 19, 25, 29, 30, 31, 38, 39, 41, 45, 48, 51, 52, 53, 55, and 56 of the ’691 patent and “substantially constant thickness” as it appears in claim 5 of the ’679 Patent. In addition, the parties dispute the meaning of the term “relatively constant average thickness” as it appears in claims 1, 19, 25, 51, 52, 53, 55, and 56 of the ’691 Patent.

**1. “substantially the same thickness,” “substantially constant thickness”**

Independent claim 1 of the ’691 Patent requires that “the skin or core layer thickness in one zone will be substantially the same as the same skin or core layer thickness in all zones.” (’691 Patent (Reexamination Certificate), c. 1, ll:33-36.) Claim 29 of the ’691 Patent recites:

A multi-layer *inelastic* film laminate comprising at least one non-elastomeric skin film layer and at least one core film layer, the at least one skin layer and the at least one core layer forming preferential activation regions and non-preferential activation regions for a given skin or core layer, the skin or core layer thickness in one region will be substantially the same as the same skin or core layer thickness in all regions.

(*Id.*, c. 3, ll:22-34 (second emphasis added).) Claim 5 of the '679 Patent requires that “each layer has a substantially constant thickness across the width of the film.” (*Id.*, c. 29, ll:9-13.)

3M asserts that these terms need not be construed because they are based on the plain language of the claims. As such, 3M suggests that “substantially the same thickness” be construed as “the skin or core layer is substantially the same thickness in the preferential and non-preferential activation zones (or regions)” and “substantially constant thickness” as “the skin and elastomeric layer are substantially the same thickness across the width of the film.” (Joint Chart, Ex. 3 at 7-8; Ex. 4 at 26-27.)<sup>16</sup> Tredegar asserts that the proper construction for both terms is “the thickness of each skin layer and each core layer is essentially the same across the entire laminate, both before or after the laminate has been subjected to a uniform applied tension.”<sup>17</sup>

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<sup>16</sup> In its Claim Construction Brief, 3M asserts that “substantially constant thickness” should be construed as “the skin and elastomeric layer have substantially constant thickness across the width of the film.” (Doc. No. 42 at 26.)

<sup>17</sup> Tredegar offers the same construction for “relatively constant average thickness,” which the Court discusses separately below. This construction is a modification of Tredegar’s original proposed construction—“the thickness of each skin layer and each core layer does not change across different zones in the laminate, either before or after the laminate has been subjected to a uniform applied tension.” Tredegar offered the modification in response to 3M’s argument that Tredegar’s original incorporation of the term “zones” in its proposed construction for the contested term in claim 5 of the '679 Patent was improper. In particular, 3M asserted that it was improper to read in “preferential activation zones” into the '679 Patent. 3M also originally argued that Tredegar’s construction improperly read out the term “substantially” from the claim. It appears that this argument was directed at the original proposed construction, before Tredegar offered its modified construction, which added “essentially.” At the hearing, (continued on next page...)

Considering Tredegar's modified construction, it appears that the parties' principal dispute with respect to these terms hinges on whether, as Tredegar argues, "each skin layer *and* each core layer" must have the same thickness across the laminate, both before and after activation. 3M's construction, in contrast, would require that "the skin *or* core layer" be substantially the same thickness in the relevant claims of the '691 patent.<sup>18</sup> In addition, 3M's construction would not require the laminate to be the same thickness "either before or after" activation.

The asserted independent claims of the '691 Patent refer to the laminate at various stages. For example, claims 1 and 29 refer to the intermediate product (prior to activation) with preferential activation zones or regions. Claim 38 refers to the final product (after activation) with elasticized preferential activation zones. Tredegar asserts these claims support the conclusion that the thickness of the laminate, across all zones, is substantially the same before and after activation. Tredegar relies on the file histories and claims that the patentees both relied on constant thickness to distinguish prior art and abandoned an amendment to the post-activation claims that would have threatened the requirement of constant thickness. (Doc. No. 41 at 28-9.)

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(...continued from previous page)

3M maintained its objection to the elimination of the word "substantially." (Doc. No. 104 at 70.)

<sup>18</sup> 3M notes that independent claims 29 and 38 of the '691 Patent only require that "the skin or core layer" be substantially the same thickness, and that while independent claim 1 similarly contains the limitation that "the skin or core layer" must have the same thickness, claim 1 also requires that both the skin and core layer have "relatively constant average thickness."

3M argues that Tredegar's construction improperly requires that "each skin layer and each core layer" must have the same thickness, when the independent claims 29 and 38 of the '691 Patent only require that "the skin *or* the core layer" must be substantially the same thickness. The Court agrees with 3M that Tredegar's construction is inconsistent with both the claim language and intrinsic evidence in this regard. As pointed out by 3M, the claim language expressly requires that the skin *or* core layer be substantially the same thickness across different zones or regions. Moreover, during the prosecution of the '691 Patent, the word "each" was removed from the claims. (Doc. No. 44 ¶ 6, Ex. 5 at 186-87.)

In addition, with respect to Tredegar's proposed requirement that the layers be essentially the same thickness "both before or after" stretching, the Court notes that the specification expressly states that there will be some variation in the thickness of layers in the laminate after activation: "Further, preferably, the elastomer will sustain only small permanent set following deformation and relaxation which set of preferably less than 20 percent and more preferably less than 10 percent of the original length at moderate elongation, e.g., about 400-500%." ('691 Patent, c. 4, ll:60-64.) Also, this part of the specification was discussed during reexamination proceedings:

[P]rior to activation, [the skin and core layers] are of relatively constant average thickness in both the areas to be activated and the areas that are not to be activated. See, e.g., claim 1. Of course, as reflected in the specification at column 4, lines 58-64, for example, there will be a relatively small "permanent set" imparted to the stretched elastic portions of the laminate that will cause some variation in layer thickness in the finished laminate. Thus, claims encompassing the activated laminate specify that one of the layer thicknesses remains "substantially the same" after activation.

(*Id.* ¶ 7, Ex. 6 at 6.) Thus, when the laminate stretches, it returns back to nearly (but not exactly) the same thickness as it was before activation.

Based on a review of the language of the claims and the intrinsic evidence, the Court adopts 3M's proposed constructions as follows: "substantially the same thickness" is construed as "the skin or core layer is substantially the same thickness in the preferential and non-preferential activation zones (or regions)" and "substantially constant thickness" is construed as "the skin and elastomeric layer have substantially constant thickness across the width of the film."

Tredeggar points out that 3M proposes the same construction for the term "substantially the same thickness" in claim 38, even though that claim refers to laminate after activation and therefore when preferential activation zones have become elasticized. The Court recognizes that 3M's proposed construction, therefore, refers to the thickness of the skin or core layer in preferential and non-preferential activation zones (or regions) when it appears the construction with respect to claim 38 should refer to "elasticized preferential and non-elasticized non-preferential activation zones." Thus, as it appears in claim 38, the term "substantially the same thickness" is properly construed as "the skin or core layer is substantially the same thickness in the elasticized preferential and non-elasticized non-preferential zones."

## **2. "relatively constant average thickness"**

The parties dispute the meaning of the term "relatively constant average thickness" as it appears in claims 1, 19, 25, 51, 52, 53, 55, and 56 of the '691 Patent. For

example, claim 1 requires core and skin layers that are “substantially coextensive and having relatively constant average thickness over both the at least one preferential activation zone and an at least one adjacent non-preferential activation zone.” (’691 Patent (Reexamination Certificate), c. 1, ll:30-34.) Claim 51 requires “a film formed of substantially coextensive layers having a relatively constant average thickness across the width of the laminate.” (*Id.*, c. 4, ll:33-37.)

3M contends that “relatively constant average thickness” should be construed in claims 1, 19, 25, 52, 53, 55, and 56 of the ’691 Patent as “prior to activation, the skin and core layers are of relatively constant average thickness in both the preferential and non-preferential activation zones,” and in claim 51 as “prior to activation, the skin and core layers are of relatively constant average thickness across the width of the laminate.” 3M contends that the different constructions reflect the difference in the claims, in that the first group of claims requires relatively constant average thickness over the various zones, and that claim 51 requires relatively constant average thickness over the width of the film. Tredegar contends that “relatively constant average thickness” should be construed as “the thickness of each skin layer and each core layer is essentially the same across the entire laminate, both before and after the laminate has been subjected to a uniformed applied tension.”<sup>19</sup>

The parties’ proposed constructions differ in significant part in that 3M’s proposed construction reflects that the claims relate to an intermediate product—a laminate that has

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<sup>19</sup> This construction is a modification of Tredegar’s original proposed construction.

not yet been activated, while Tredegar's proposed construction explains that the "relatively constant average thickness" refers to unchanging thickness at various points in time, including before and after stretching. In support of its construction, 3M points to the reexamination file history of the '691 Patent, during which the concept of "relatively constant average thickness" was addressed:

[T]he skin and core film layers from which the claimed elastic laminate is formed are coextensive with each other and, prior to activation, are of relatively constant average thickness in both the areas to be activated and the areas that are not to be activated. See, e.g., claim 1.

(Doc. No. 44, ¶ 7, Ex. 6 at 6.) Tredegar concedes in its opening brief that claims 1 and 29 refer to the laminate prior to activation, but argues that other claims (namely claim 38) refers to the laminate after it has been activated. All of the claims reciting "relatively constant average thickness," however, are dependent on either claim 1 or claim 29. Accordingly, the Court concludes that the proper construction of the term as it is recited in claims 1, 19, 25, 51, 52, 53, 55, and 56 is "prior to activation, the skin and core layers are of relatively constant average thickness in both the preferential and non-preferential activation zones." In claim 51, the term is properly construed as "prior to activation, the skin and core layers are of relatively constant average thickness across the width of the laminate."

#### **E. "elastic regions"**

The parties dispute the meaning of the term "elastic regions" as it appears in claim 38 of the '691 Patent. Independent claim 38 recites in its preamble, "[a]n article having a film laminate with elastic regions." ('691 Patent (Reexamination Certificate), c. 4, ll:12.)

3M asserts that the claim language is clear and need not be construed, but that if the Court decides to construe the term, it should construe it as “a film laminate that contains regions that are elastic.” (Joint Chart, Ex. 4 at 52.) Tredegar asserts that the Court should construe the term as “regions that have been stretched past their elastic limit and that recover to close to their original shape.” (*Id.*)

Tredegar asserts that an “elastic region,” by definition, is a final product that is the result of a process in which “the laminate is stretched past the elastic limit of the skin layer(s).” (’691 Patent, c. 14, ll:53-56.) In support, Tredegar cites to the specification and relies on the same arguments used with respect to the construction of “preferential activation zones” discussed above. Tredegar also asserts that the specification defines “elastomeric” as “the material will substantially resume its original shape after being stretched.” (*Id.*, c. 4, ll:58-59.) 3M asserts that Tredegar’s proposed construction improperly reads “elasticized preferential activation zones” into the preamble of the claim.

The Court agrees with the arguments made by 3M. Therefore, the Court concludes that the preamble of the claim is clear and need not be construed.

**F. “continuous microtextured skin layer over substantially the entire laminate”**

The parties dispute the meaning of the term “continuous microtextured skin layer over substantially the entire laminate” as it appears in claims 1, 2, 5, and 6 of the ’034 Patent. Those claims require “[a]n elastomeric laminate consisting essentially of at least one elastomeric layer and at least one continuous microtextured skin layer over

substantially the entire laminate.” (’034 Patent, c. 28, ll:40-52.) 3M asserts that the term should be construed as “one unified skin layer over substantially the entire laminate having at least one microtextured region.” (Joint Chart, Ex. 2 at 2.) Tredegar asserts that the term is properly construed as “substantially the entire surface area of the laminate.” (Doc. No. 104 at 142.)

3M proposes that the term “continuous” relates to the skin layer but not the microtexturing and thus does not require continuous microtexturing. (*Id.* at 42.) Tredegar proposes that the simplest reading is that the skin layer is continuously microtextured and extends over substantially the entire surface area of the laminate. Thus, it is the extent of the microtexturing that is disputed with respect to this claim limitation.

The ’034 Patent is a Krueger Patent. While both the Hanschen and the Krueger patents relate to multi-layer laminates that are stretched beyond the skin layer’s deformation to become elastic, the Hanschen and Krueger Patents differ in the following way: in the Hanschen Patents, only certain regions of the laminate are stretched beyond the deformation limit (and therefore the laminate has regions both with and without a microtextured surface); and the Krueger Patents do not teach a laminate with the different regions or zones (preferential activation zones that are stretched to have a microtextured surface and non-preferential zones that do not have a microtextured surface). In addition, the ’034 Patent teaches that microstructuring is continuous. (’034 Patent, c. 10, ll:35-37 (“Preferably the layers are coextensive across the width and length of the laminate. With such a construction the microtexturing is substantially uniform over the elastomeric

laminate surface”; *id.*, c.12, ll:11-12 (“The unique continuous microstructured surfaces of the invention . . .”).

The Court concludes that Tredegar’s proposed construction is supported by the intrinsic record and consistent with the teaching of the Krueger Patents. Thus, the Court construes the term “continuous microtextured skin layer over substantially the entire laminate” as “substantially the entire surface area of the laminate.”

**G. “substantially intermittent contact”**

The parties dispute the meaning of the term “substantially intermittent contact” as it appears in claim 53 of the ’691 Patent. Claim 53 requires that “the skin and core layers remain in substantially intermittent contact in the activated zones following stretching and activation.” 3M suggests that this term be construed as: “[T]he skin and core layers under the microstructure folds have intermittent (not continuous) contact.” In support, 3M cites to the following portion of the specification of the ’691 Patent:

If the elastomeric layer is in direct contact with the skin layer the skin layer should have sufficient adhesion to the elastomeric core layer such that it will not readily delaminate. Acceptable skin-to-core contact has been found to follow three modes: first, full contact between the core and microtextured skin; second, cohesive failure of the core under the microtexture folds; and third, adhesive failure of the skin to the core under the microtexture folds with intermittent skin/core contact at the fold valleys.

(’691 Patent, c. 6, ll:44-48.) 3M asserts that the specification states what is meant by “intermittent contact”—namely, that the skin and core are not in continuous contact (full contact or cohesive failure), and that one of skill in the art would understand what intermittent contact means.

Tredegear asserts that this term is indefinite, as “substantially intermittent” is not used anywhere in the specification or prosecution of the Hanschen Patents and “[i]t is impossible to tell if a laminate can have both substantially continuous *and* substantially intermittent contact.” (Doc. No. 41 at 31.) Tredegear further argues that 3M’s attempt to define “intermittent” is not helpful in defining what is meant by “substantially intermittent.”

After a review of the claim language and additional intrinsic evidence, the Court agrees that the claim is indefinite. The term is not used or defined anywhere in the intrinsic evidence and the term itself does not explain what is meant by “substantially intermittent contact.”

#### **H. “patterned surface macrotexture”**

Claim 31 of the ’691 Patent requires that the “at least some of said preferential and non-preferential activation regions form a pattern which, when stretched and recovered, will form a patterned surface macrotexture with at least one microstructured skin layer in said preferential activation regions.” (’691 Patent (Reexamination Certificate), c. 3, ll:40-45.) 3M contends that this term should be construed as “a pattern on the laminate that can be seen by the unaided eye.” (Joint Chart, Ex. 4 at 49.) Tredegear asserts that the term is indefinite because there is no support in the specification, there is no discussion of the meaning of the term in the prosecution history, and there is no ordinary or common meaning.

3M counters that the specification expressly teaches that by using patterns of preferentially and non-preferentially activated regions, the laminates can be given a cloth-like feel:

The ability to create laminates with multiple texture types gives the invention laminate great versatility. The film can be given a clothlike or bulk feel by using patterns of preferentially and non-preferentially activated regions allowing for general film activation with regions of differing activations (i.e., stretch degree, skin thickness, skin type, etc.). This allows for the construction of an essentially infinite variety of surface textures. Usable [sic] in a variety of situations, where a clothlike or like textured surface is desired with the properties of a polymeric and/or elastic film.

(’691 Patent, c. 19, ll:49-59). In addition, 3M points out that one example from the specification shows a laminate stretched and relaxed to form a “complex yet repeating macrostructured surface.” (*Id.* at c. 34, ll:26-31 & Fig. 16.) 3M also contends that the plain meaning of “macrotexture” is that it is large enough to be seen by the unaided eye. In support, 3M submits that “macro” is defined as a “[p]refix meaning large” and that “macroscopic” is defined as “[l]arge enough to be perceived by the naked eye.” (Doc. No. 44 ¶ 13, Ex. 12 (*McGraw-Hill Dictionary of Scientific and Technical Terms* 1124-25 (4th ed. 1989)).) 3M submits that these definitions are consistent with the teachings of the ’691 Patent’s specification, namely that “microtexturing” needs magnification to be seen and that a person of ordinary skill in the art would understand that “macrotexture” does not require magnification.

The Court concludes that 3M’s proposed construction is supported by the specification and is consistent with the ordinary meaning of the term. Accordingly, the

Court construes “patterned surface macrotexture” as “a pattern on the laminate that can be seen by the unaided eye.”

**I. “surface area of microtextured skin layer is at least 50% greater than a corresponding untextured surface”**

Claim 7 of the '679 Patent requires that the “surface area of the microtextured skin layer is at least 50% greater than a corresponding untextured surface.” ('679 Patent, c. 30, ll:5-7.) 3M contends that this limitation is clear based on its plain and ordinary meaning and need not be construed. Tredegar originally asserted that the limitation should be construed as “surface area of the skin layer after microtexturing is at least 150% of the surface area prior to any microtexturing.” (Joint Chart, Ex. 1 at 9.) However, Tredegar did not address the construction of this term in its claim construction briefs. Accordingly, the Court concludes that the claim limitation is clear and requires no further construction.

**J. “ribbon”**

The parties dispute the meaning of the term “ribbon” as it appears in claims 9 and 10 of the '034 Patent. Claims 9 and 10 of the '034 Patent disclose a “colored elastomeric ribbon.” 3M asserts that the term should be construed as “a strip of elastomeric fabric or film” and Tredegar asserts that the term should be construed as “a strip of film having a width of no more than 1 inch.” The parties agree that a ribbon is “a strip of film,” but Tredegar asserts that the claim should be limited to a strip of film “having a width of no more than 1 inch.” The parties also agree that the patent

specification does not provide any additional information regarding the parameters of the ribbon.

Tredegear asserts that its proposed 1 inch limitation is part of a commonplace meaning for ribbon as a narrow strip. Tredegear also relies on claims from another patent, U.S. Patent No. 4,143,195 (the “Rasmussen Patent”), which Tredegear asserts is incorporated by reference in the ’034 Patent or, because it is cited as prior art, is part of the intrinsic evidence. The Rasmussen Patent discloses “ribbon like strips.” (Doc. No. 43 ¶ 13, Ex. L.) Claim 5 of the Rasmussen Patent specifies that each strip “has a width of about 0.01-0.5 mm” and claims 6 and 7 of the Rasmussen Patent specify that each strip has a width of less than 0.5 mm. (*Id.*)

The Court first determines that “ribbon” means “a strip of film.” 3M offers no intrinsic evidence to support the suggestion that a “ribbon” can be a “strip of elastomeric fabric.” The Court next must determine if there is support for Tredegear’s proposed construction limiting the “strip of film” to “having a width of no more than 1 inch.” The ’034 Patent uses “ribbon” to differentiate from other larger pieces of film, and that patent makes clear that “film” and “ribbon” are not identical. 3M’s proposed construction, however, does not differentiate between the two. The Court concludes that the citation of the Rasmussen Patent, regardless of whether it was incorporated by reference, supports the additional width limitation proposed by Tredegear. *See, e.g., Kumar v. Ovonic Battery Co., Inc.*, 351 F.3d 1364, 1368 (Fed. Cir. 2003) (recognizing that prior art cited in a patent or in the prosecution history constitutes intrinsic evidence). Thus, the Court construes “ribbon” as “a strip of film having a width of no more than 1 inch.”

**K. “opaque”**

The parties dispute the meaning of the term “opaque” as it appears in claims 9 and 10 of the ’034 Patent. Claim 9 of the ’034 Patent recites “[a] colored elastomeric ribbon comprising at least one layer having an added colorant and at least one opaque skin layer, wherein said at least one opaque polymeric skin layer is a microtextured outer layer.” (’034 Patent, c. 29, ll:7-13.) 3M asserts that the term should be construed as “not transparent” or “not clear.”<sup>20</sup> (Doc. No. 104 at 48.) Tredegar asserts that the term should be construed as “not transparent or translucent, and/or not reflecting light; impenetrable to light; not allowing light to pass through; and having no luster.”

The specification indicates that microtexturing exhibits degrees of opacity. (’034 Patent c.11, ll:28-32–c. 12, ll:35-44.) The language of claim 9 recites a microtextured skin layer. The specification explains that microtexturing generally increases the opacity of a laminate by at least 20%. (’034 Patent, c. 12, ll:35-37 (“Increased opacity of the skin and hence the laminate also results from microtexturing. Generally, the microtexturing will increase the opacity value of a clear film to at least 20%, preferably to at least 30%.”) (emphasis added).). In addition, claim 9 adds a colorant to the elastomeric ribbon.

Based on the claim language and additional intrinsic evidence, the Court construes the term “opaque” as “not transparent or not clear.”

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<sup>20</sup> 3M modified its proposed construction after originally proposing that “opaque” be construed as “not completely transparent.”

## **L. “inelastic”**

The parties dispute the meaning of the term “inelastic” as it appears in claims 1 and 4 of the ’428 Patent and claims 1, 19, 25, 29, 30, 31, 51, 52, 53, 55, and 56 of the ’691 Patent. For example, claim 1 of the ’428 Patent recites “[a] method of forming a zone activatable inelastic laminate” (’428 Patent, c. 37, ll:2-3), and claims 1 and 29 of the ’691 Patent recite “a multi-layer *inelastic* film laminate.” (’691 Patent (Reexamination Certificate), c. 1, ll:23 & c. 3, ll:22.) In addition, claim 1 of the ’691 Patent recites “non-preferential activation zones will not preferentially elongate to provide substantially inelastic zones.” (*Id.*, c. 1, ll:41-43.)

3M asserts that the claim language is clear and need not be construed, but that if the Court decides to construe the term, it should construe it as “not elastic.” (Joint Chart, Ex. 3 at 1.) Tredegar asserts that the term should be construed as “material that has not been stretched past its elastic limit.” (*Id.* at 4.) Tredegar argues that 3M’s proposed construction of “inelastic” fails to take into account the temporal nature of the term and the context in which the term appears in the claims. In particular, Tredegar suggests that the specification and prosecution history demonstrate that that “inelastic” means the laminate in the intermediate (unstretched or unactivated) form.

3M asserts that Tredegar’s proposed construction is flawed because the term “inelastic” refers to both the actual laminate before it has been stretched as well as the non-preferential activation zones. (Doc. No. 42 at 40.) In particular, 3M points to claim 1 of the ’691 Patent, which states in part that “nonpreferential activation zones will not preferentially elongate to provide substantially inelastic zones.”

Based on the claim language and the additional intrinsic evidence, the Court concludes that the term “inelastic” is not limited to laminate in its intermediate or unstretched form. In addition, the Court concludes the term “inelastic” is clear and requires no further construction.

**M. “stretched”**

The parties dispute the meaning of the term “stretched” as it appears in claims 1 and 6 of the '034 Patent and claims 1, 29, 31, 52, and 53 of the '691 Patent. For example, claim 1 of the '034 states in part: “the microtexture on said skin layer is formed by stretching an untextured laminate past the deformation limit of at least one untextured skin layer and allowing the stretched laminate to elastically recover over the entire region stretched.” ('034 Patent, c. 28, ll:44-48.)

3M asserts that the claim language is clear and need not be construed, but that if the Court decides to construe the term, it should construe it as “to extend in length.” (Joint Chart, Ex. 2 at 7.) Tredegar asserts that the term should be construed as “increasing the dimension of a material in at least one direction in response to an applied tension.” (*Id.*) The Court concludes that the claim limitation is clear and requires no further construction.

**N. “substantially the entire extents of said laminate”**

The parties dispute the meaning of the term “substantially the entire extents of said laminate” as it appears in claim 45 of the '691 Patent. Claim 45 recites: “The article of claim **38** wherein said nonelasticized and elasticized zones extend continuously across substantially entire extents of said laminate.” ('691 Patent, c. 39, ll:43-45.) Claim 38

covers the final product, after the laminate has been activated. 3M asserts that the claim limitation is clear in the context of the claim language and need not be construed, but also that if the Court should construe the term, it is properly construed as “the nonelasticized zones and elasticized zones extend continuously across substantially the entire extents of the laminate.” (Joint Chart, Ex. 4 at 71.) Tredegar asserts that the term should be construed as “the entire surface of the laminate.” (*Id.* at 75.)

A review of the intrinsic evidence reveals that the applicants intended that the final laminate be composed of only nonelasticized and elasticized zones (i.e., there are no portions of the laminate composed of something other than either a nonelasticized or elasticized zones). Therefore, the Court agrees with Tredegar that the word “substantially” would improperly leave open the possibility that the laminate could be composed of something other than the required nonelasticized and elasticized zones. Thus, by definition, the nonelasticized and elasticized zones extend across the entire surface area of the laminate. Accordingly, the Court construes the term “substantially the entire extents of said laminate” as “the entire surface area of the laminate.”

### **ORDER**

Therefore, **IT IS HEREBY ORDERED** that:

The claims at issue are construed as set forth in this Memorandum Opinion and Order.

Dated: November 30, 2011

s/Donovan W. Frank  
DONOVAN W. FRANK  
United States District Judge